

# WA State Consolidated Technology Services State Data Center Projects

<b>Prepared By:</b>	<b>Consolidated Technology Services</b>
<b>Date: 1/03/2013</b>	<b>Period Covered: December 24 – January 4</b>

## Project Dashboard

	Scope	Schedule	Budget
<b>Project Name</b>			
<b>SDC Program</b>			
<b>SDC Facilities</b>			
<b>SDC Network</b>			
<b>SDC Firewall</b>			
<b>SDC Storage Optimization</b>			
<b>SDC Cloud Utility Service</b>			
<b>OB2/CTS Move Phase 1</b>			
<b>Migrate WSP to SDC</b>			
<b>Virtual Tape Library</b>			
<b>OB2/CTS Move Phase 2</b>			
<b>OB2 Data Center Optimization</b>			

		Baseline Budget as of 6/2012	Actuals as of 10/31/2012
Phase #	Phase	Budget	Actuals
0	SDC Program	\$2,729,570	\$1,703,971
1	OB2 Heat Reduction	\$0	
2	Facilities Op Readiness	\$2,673,817	\$3,502,407
3	NW Core Op Readiness	\$8,592,141	\$5,727,071
4	Firewall	\$3,671,579	\$224,454
5	Storage Optimization	\$4,294,613	\$1,032,857
6	Cloud Utility Service	\$1,000,000	
7	OB2 Move Phase 1	\$6,700,814	\$120,790
8	Virtual Tape Library	\$1,950,000	
9	OB2 Move Phase 2	\$4,338,749	
10	OB2 Data Center Optimization	\$1,500,000	
11	Migrate WSP	\$2,000,000	
<b>Total</b>		<b>\$39,451,283</b>	<b>\$12,311,550</b>

### Scope Key:

- G = No issues are impacting scope
- Y = Issues are being tightly managed, but may impact scope
- R = Unresolved issues are preventing progress of identified scope

### Schedule Key:

- G = On schedule
- Y = Key milestones are more than 2 weeks late
- R = Key milestones are more than 8 weeks late

### Budget Key:

- G = Planned spending is within 5% to 10% of agreed upon budget
- Y = Planned spending is within 11% to 20% of agreed upon budget
- R = Planned spending is greater than 20% of agreed upon budget

## SDC Projects Status

Project	Planned for this Reporting Period (December 24 – January 4)	Status of Work Performed this Reporting Period (December 24 – January 4)	Planned for Next Reporting Period (January 7 – January 18)
<b>SDC Program</b>	<ul style="list-style-type: none"> <li>Continue work on Design Decisions:               <ul style="list-style-type: none"> <li>SDC-036 Converged Networking – integrating feedback into document</li> <li>SDC-013 Load Balancing for new CTS applications as current service nears EOS</li> <li>SDC-038 Storage switch ownership – Reviewing data for accuracy</li> <li>SDC-039 VM Migration Strategy</li> <li>SDC-021A Intra-Row Cabling (adding Twin-Ax direction from CTO)</li> </ul> </li> <li>Continue work on the SDC Technology Lab layout design, equipment needs, and guide. Lab scheduled to be ready in March.</li> <li>Continue working with facilities on procedures</li> <li>Continue meeting with CTO to review datacenter security procedures</li> </ul>	<ul style="list-style-type: none"> <li>Continued work on Design Decisions:               <ul style="list-style-type: none"> <li>SDC-036 Converged Networking – integrating feedback into document</li> <li>SDC-013 Load Balancing for new CTS applications as current service nears EOS</li> <li>SDC-038 Storage switch ownership – Reviewing data for accuracy</li> <li>SDC-039 VM Migration Strategy</li> <li>SDC-021A Intra-Row Cabling (adding Twin-Ax direction from CTO)</li> </ul> </li> <li>Continued work on the SDC Technology Lab layout design, equipment needs, and guide. Lab scheduled to be ready in March.</li> <li>Continuing to work with facilities on procedures</li> <li>Continuing meeting with CTO to review datacenter security procedures</li> </ul>	<ul style="list-style-type: none"> <li>Continue work on Design Decisions               <ul style="list-style-type: none"> <li>Integrate service owner feedback into SDC-036 document</li> <li>On hold-SDC-013 Load Balancing for new CTS applications as current service nears EOS</li> <li>Receive service owner feedback on SDC-038 Storage switch ownership</li> <li>Receive signature on SDC-039 VM Migration Strategy</li> <li>Receive service owner feedback on SDC-021A Intra-Row Cabling</li> </ul> </li> <li>Finalize work on the SDC Technology Lab layout design, equipment needs, and guide. Lab scheduled to be ready in March.</li> <li>Continue working with facilities on procedures</li> <li>Continue meeting with CTO to review datacenter security procedures</li> </ul>
<b>SDC Facilities</b> Prepare the SDC facility for customers. Includes preparing the critical environment (electrical/mechanical), floor space and physical security for customers.	<p><u>Space Management:</u></p> <ul style="list-style-type: none"> <li>Continue work on operating procedures and implementation</li> <li>Configuring and provisioning enclosures</li> <li>Begin installing structured cabling for firewall project (actually completed 12/17)</li> </ul> <p><u>Physical Security:</u></p> <ul style="list-style-type: none"> <li>Update procedures with required changes</li> <li>Implement access control changes</li> <li>Finalize OLS review and provide draft physical security policy to CTS policy team.</li> </ul> <p><u>Critical Environment:</u></p> <ul style="list-style-type: none"> <li>Continue to define required procedures and implementation plan.</li> </ul>	<p><u>Space Management:</u></p> <ul style="list-style-type: none"> <li>Continued work on operating procedures and implementation</li> <li>Completed configuring and provisioning enclosures 12/24</li> </ul> <p><u>Physical Security:</u></p> <ul style="list-style-type: none"> <li>Updated procedures with required changes</li> <li>Implemented access control changes</li> <li>Completed initial OLS review and provided physical security policy to CTS policy team.</li> </ul> <p><u>Critical Environment:</u></p> <ul style="list-style-type: none"> <li>Continued to define required procedures and implementation plan.</li> </ul>	<p><u>Space Management:</u></p> <ul style="list-style-type: none"> <li>Continue work on operating procedures and implementation</li> <li>Design sessions underway for future LTS migration into DH1, Row 4 North.</li> <li>Design sessions underway w/ Server Team for future CSD server migration.</li> </ul> <p><u>Physical Security:</u></p> <ul style="list-style-type: none"> <li>Update procedures with required changes</li> <li>Finalize physical security policy and send to CTS policy team for review.</li> </ul> <p><u>Critical Environment:</u></p> <ul style="list-style-type: none"> <li>Continue to define required procedures and implementation plan.</li> </ul>

Project	Planned for this Reporting Period (December 24 – January 4)	Status of Work Performed this Reporting Period (December 24 – January 4)	Planned for Next Reporting Period (January 7 – January 18)
<b>SDC Network Core</b> Establish the network core in the SDC and connect with the OB2 network.	<ul style="list-style-type: none"> <li>Complete execution of Cisco Network Implementation Plan (NIP) for SAN (Storage).</li> <li>Complete execution of Cisco Network Ready for Use (NRFU) functional tests for SAN and DCNM.</li> <li>Migrate M6 (SMON) and CRS from OB2 to SDC – January 5.</li> </ul>	<ul style="list-style-type: none"> <li>Completed preparation for execution of Cisco Network Implementation Plan (NIP) for SAN (Storage).</li> <li>Completed preparations for execution of Cisco Network Ready for Use (NRFU) functional tests for SAN and DCNM.</li> <li>Completed migration of M6 (SMON) and CRS from OB2 to SDC – January 5.</li> </ul>	<ul style="list-style-type: none"> <li>Complete execution of Network Implementation Plan (NIP) for SAN (Storage).</li> <li>Complete execution of Network Ready for Use (NRFU) functional tests for SAN and Data Center Network Management (DCNM).</li> <li>Move 2nd CRS from OB2 to SDC.</li> <li>Complete Cisco Knowledge Transfers for DCNM and SAN.</li> </ul>
<b>SDC Firewall Project</b> Replace aged and over-capacity firewalls and deliver enhanced data security services to both OB2 and SDC.	<ul style="list-style-type: none"> <li>Begin testing phase for function only</li> <li>Complete layer 1-3 connectivity to Network Core</li> </ul>	<ul style="list-style-type: none"> <li>Firewalls cabled, powered and racked</li> <li>Firewalls tested</li> </ul>	<ul style="list-style-type: none"> <li>Begin firewall mapping exercises</li> </ul>
<b>SDC Storage Optimization</b> Replace aged systems and optimize the environment to reduce rates.	<ul style="list-style-type: none"> <li>Receive Production BIN file from Presidio / EMC and install</li> <li>Finish SCA configuration and knowledge transfer</li> <li>Finish cable / port change request at OB2 9513's for ISL's (TSD EDN)</li> <li>Finish VMAX ESRS configuration / test</li> </ul>	<ul style="list-style-type: none"> <li>Received and Installed Production BIN file from Presidio / EMC</li> <li>SCA configuration and knowledge transfer in progress, continue to work on discovery of VMware environment</li> <li>Completed cable / port change request at OB2 9513's for ISL's</li> <li>VMAX ESRS configuration &amp; test is in progress, automated e-mail generation is being resolved</li> </ul>	<ul style="list-style-type: none"> <li>Finish SCA configuration and knowledge transfer</li> <li>Finish ESRS configuration and Test</li> <li>Finish the Cisco SAN Network Ready for Use Test Plan</li> <li>Finish the Cisco SAN Knowledge Transfer</li> <li>Connect and Test the 16 ISL connections between the SDC SAN fabric and the OB2 SAN Fabric</li> </ul>
<b>Cloud Utility Servers Project</b> Refresh Server Provisioning infrastructure and provide a cloud utility platform for CTS customers.	<ul style="list-style-type: none"> <li>Purchase upgrades for existing licenses</li> <li>Identify next steps for procurement of expertise regarding service definition</li> </ul>	<ul style="list-style-type: none"> <li>Purchased upgrades for existing licenses</li> <li>Identified next steps for procurement</li> </ul>	<ul style="list-style-type: none"> <li>Begin procurement process</li> </ul>

Project	Planned for this Reporting Period (December 24 – January 4)	Status of Work Performed this Reporting Period (December 24 – January 4)	Planned for Next Reporting Period (January 7 – January 18)
<b>OB2 Risk Mitigation (CTS Move Phase 1)</b> Move selected CTS equipment that best alleviates the heat issue in OB2.	<ul style="list-style-type: none"> <li>Continue to refine move groups for both physical and virtual servers.</li> <li>Refine the server portion of the task plan and schedule to hone in on the next 90 days as this is when the moves will start.</li> <li>Continue work on establishing performance measures.</li> </ul>	<ul style="list-style-type: none"> <li>Continued to refine move groups for both physical and virtual servers.</li> <li>Refined the server portion of the task plan and schedule to hone in on the next 90 days.</li> <li>Refined the project definition for the WAN Carrier Build-out project. A lot of the work has already been completed by SDC Facilities.</li> <li>Continued work on establishing performance measures. Conducted meetings with each group to define performance measures and the approach used to establish performance baselines.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to refine move groups for both physical and virtual servers. Begin executing the plan.</li> <li>Update other sections in the Move Phase 1 plan as needed to reflect refinement in approaches, dependencies and timelines.</li> <li>Continue work on establishing performance measures.</li> </ul>
<b>Migrate WSP to SDC</b> Plan and execute the first phase of migrating the WSP data center to the SDC.	<ul style="list-style-type: none"> <li>Continue work on the IAA (pending WSP feedback).</li> <li>Continue efforts to establish SDC rates (pending from OFM).</li> <li>Begin development of options for using CTS infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>No progress made this reporting period. Things are on hold pending WSP direction.</li> </ul>	<ul style="list-style-type: none"> <li>No action planned this reporting period.</li> </ul>
<b>Virtual Tape Library Disaster Recovery (VTL)</b> Procure additional VTL equipment to eliminate the tape backup system and support mainframe disaster recovery.	<ul style="list-style-type: none"> <li>Storage SEA will research options for moving forward with the VTL environment</li> </ul>	<ul style="list-style-type: none"> <li>Storage SEA researched options for moving forward with the VTL environment</li> </ul>	<ul style="list-style-type: none"> <li>Storage SEA will research options for moving forward with the VTL environment</li> </ul>
<b>OB2 Risk Mitigation (CTS Move Phase 2)</b> Continue the progress of Phase 1 by moving additional CTS equipment to the SDC.	<ul style="list-style-type: none"> <li>No activity planned for next reporting period</li> </ul>	<ul style="list-style-type: none"> <li>No activity planned for next reporting period</li> </ul>	<ul style="list-style-type: none"> <li>No activity planned for next reporting period</li> </ul>
<b>OB2 Data Center Optimization</b> Reconfigure remaining equipment in OB2 to optimize airflow and cooling.	<ul style="list-style-type: none"> <li>No activity planned for next reporting period.</li> </ul>	<ul style="list-style-type: none"> <li>No activity planned for next reporting period.</li> </ul>	<ul style="list-style-type: none"> <li>No activity planned for next reporting period</li> </ul>

## WA State Consolidated Technology Services State Data Center Projects

### External Project Collaboration

External Project	Planned for this Reporting Period (December 10 – December 21)	Status of Work Performed this Reporting Period (December 10 – December 21)	Planned for Next Reporting Period (December 24 – January 4)
<b>Replace Cisco MDS 9509 SAN Fabric Switches</b> Replace SAN fabric switches in OB2 that are at end of vendor support.	<ul style="list-style-type: none"> <li>• Work with team to complete revisions on project charter</li> <li>• Review proposed schedule with internal teams</li> </ul>	<ul style="list-style-type: none"> <li>• The team is identifying different approaches to reduce the risk involved with this project.</li> </ul>	<ul style="list-style-type: none"> <li>• The team is identifying different approaches to reduce the risk involved with this project.</li> </ul>
<b>VLAN Renumbering</b> Optimize VLAN numbering	<ul style="list-style-type: none"> <li>• Continue work on WBS and project schedule</li> </ul>	<ul style="list-style-type: none"> <li>• No activity planned for next reporting period.</li> </ul>	<ul style="list-style-type: none"> <li>• Renumber VLANs per schedule</li> </ul>
<b>PBX</b> Implement new PBX system	*** Project Complete ***	*** Project Complete ***	*** Project Complete ***

**Top Issues \***

**Issue Key:** *Green* = Issue does not require action within 30 days, *Yellow* = Issue requires action within 30 days, *Red* = Issue requires action within 10 days or less

Issue #	Summary Description	Assigned	Priority (R,Y,G)	Opened Date/by	Next Review Date	Target Resolution Date	Comments/Resolution	Status
132	Roles & Responsibilities for the Storage Switches and converged network need to be defined. This includes who manages the SDC fiber channel switches and the roles and responsibilities for troubleshooting fiber channel over Ethernet (FCoE) across the converged network.	Jeff Matheney	Y	11/3/11	1/16/13	1/31/13	The design decision document was split into two design decisions (FCoE vs Storage Switches)	Open
145	Potential customers (including internal CTS services) will need to know any SDC related billing impacts before CTS service rates are set for network, storage, firewall, hosting, messaging, etc services in the SDC. Also, timing of new rates needs to be worked.	Dan Mercer	Y	3/16/12	1/16/13	1/31/13	Dan working on rate structure proposal for Exec Management and OFM.	Open
199	Need to determine the scope and inter-dependencies for VTL	Storage	Y	7/22/12	1/16/13	1/31/13	No activity on this issue for current report.	Open
209	Space for storage of technology assets.	SDC	Y	11/16/12	1/16/13	1/16/13	Doug is working with teams to identify requirements and plan for resolution.	Open

**Issues Closed this Period**

Issue #	Summary Description	Assigned	Priority (R,Y,G)	Opened Date/by	Next Review Date	Target Resolution Date	Resolution	Status

**Change Requests \***

No.	Description	Requestor	Request Date	Assigned	Cost Impact	Schedule Impact	Status
	None for this reporting period						

Status (Submitted, Proposal, Approved, Opened, Resolved, Verified, Closed)

**Top 5 Risks \***

ID	Risk Description	Risk Category	Level of Impact	Likelihood	Schedule	Ability to Meet Deadline	Risk Mitigation Comment	Due Date & Action	Assigned To
1	Customers that were expecting to come into the SDC right away must now wait longer, which has end of life/investment implications	Man	3	R	G	G	Communicate with customers the new plan and schedule.	Ongoing	Program Manager
2	Timing may force a need to place hardware in OB2, which has an adverse impact on the heat reduction effort.	Cap	2	Y	G	G	<ul style="list-style-type: none"> <li>Work with customers to identify solutions that minimize additional heat in OB2.</li> <li>Institute OB2 heat reduction initiatives to turn off unused servers</li> <li>Delay implementation of new hardware in OB2 as late as possible</li> </ul>	Ongoing	Facilities
3	Because the project is large and includes substantial logistical challenges involving multiple projects/agencies, interdependencies will be complex and could be overlooked.	Man	1	R	G	G	<ul style="list-style-type: none"> <li>Apply project management practices to manage the effort.</li> <li>Break the work down into small and logical units.</li> <li>Use tools to track tasks, dependencies, issues, risks, etc. and automate the planning and communications as much as possible.</li> <li>Implement migration approaches that minimize impacts of system dependencies, such as spanning the network between the OB2 and SDC data centers.</li> <li>Use development and test platforms to verify system dependencies.</li> </ul>	Ongoing	Sr. Project Manager
4	Even though the scope has been reduced to better match the budget, it may be insufficient. Several items remain unfunded.	Res	1	R	G	G	<ul style="list-style-type: none"> <li>Request funding for unfunded projects</li> <li>Identify other funding sources (if possible)</li> <li>Reduce project scope</li> <li>Back-log unfunded projects</li> </ul>	Ongoing	Program Manager
5	Resource Conflict – Program relies on functional staff with competing priorities.	Res	1	R	G	Y	<ul style="list-style-type: none"> <li>Provide clear management guidance on priorities and carefully manage functional staff to minimize conflicts in priorities and work tasks.</li> <li>Expand resource management and track task assignments to the resource level. Identify areas in the plan where resource loading indicates a problem and take appropriate action.</li> </ul>	Ongoing	Sr. Project Manager

**Risk Category** = (Res)ources; (Man)agement; (Tec)hnology; (Fun)ctional; (Dev)elopment; (Int)erfaces; (Sec)urity; (Usa)bility; (Ava)ilability; (Per)formance; (Cap)acity; (Sca)lability; (Ext)ernal.

**Level of Impact Key:**

1=major impact  
2=significant impact  
3=minor impact  
0=no impact

**Likelihood Key:**

**G** = Low.  
**Y** = Moderate  
**R** = High

**Schedule Key:**

**G** = on schedule  
**Y** = Less than 30 days behind schedule (caution)  
**R** = More than 30 days behind schedule (warning)

**Ability to Meet Deadline Key:**

**G** = based on current information, it appears manageable  
**Y** = there are significant obstacles or areas of uncertainty or concerns  
**R** = there are clearly identifiable threats or deterioration of ability to manage and control

**Steering Committee Action Items**

Item #	Item Description	Assigned	Date Assigned	Date Due
1	Review the OB2 Heat Reduction Final Report	All Steering Committee Members	12/5/12	12/14/12